

Claims: I claim:

1. A method for supplying oxygen to a biological entity comprising the steps of :
 - a. dissolving oxygen into a perfusate,
 - b. forcing the perfusate through the biological entity,
whereby substantially high levels of oxygen are available to satisfy the metabolic demand of the biological entity
2. An apparatus for supplying oxygen to a biological entity comprising:
 - a. a vessel capable of a predetermined internal gas pressure
 - b. a pressurized gas capable of producing a predetermined gas pressure within said vessel,
 - c. a pressure hose to deliver said gas
 - d. a perfusate
 - e. a pump to circulate said perfusate
 - f. an oxygenator to dissolve oxygen into said perfusate
 - g. a plurality of fluid delivery tubes to deliver said perfusate
 - h. a biological entity
 - i. a plurality of holes in said vessel necessary to allow said tubes or hose to pass through said vessel
 - j. a perfusate container
 - k. a means for attachment of said fluid delivery tubes to said perfusate container, said pump, said oxygenator, and said biological entity

whereby substantially high levels of oxygen are available to satisfy the metabolic demand of said biological entity
3. An apparatus for supplying a metabolic supplement to a biological entity comprising:
 - a. a vessel capable of a predetermined internal gas pressure
 - b. a pressurized gas capable of producing a predetermined gas pressure within said vessel,
 - c. a pressure hose to deliver said gas
 - d. a perfusate
 - e. a pump to circulate said perfusate
 - f. an oxygenator to dissolve oxygen into said perfusate
 - g. a plurality of fluid delivery tubes to deliver said perfusate
 - h. a biological entity

- i. a plurality of holes in said vessel necessary to allow said tubes or hose to pass through said vessel
- j. a perfusate container
- k. a means for attachment of said fluid delivery tubes to said perfusate container, said pump, said oxygenator, and said biological entity
- l. a metabolic supplement
- m. a plurality of access ports connected to said fluid delivery tube to allow the addition of metabolic supplements to said perfusate

whereby the effect of said metabolic supplement to said biological entity can be monitored